

In re Application of
Uthe et al.

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(V.) SUMMARY OF CLAIMED SUBJECT MATTER

One well-known method of presenting large amounts of data to a user in a comprehensible format, particularly where interrelationships between data elements or resources convey information, is by a graphic visualization of the resources and their interconnection. One example of such a graphic visualization of the resources is a network map depicting information technology resources and their interconnection. ¶ 002, lines 3-6, 9.

Navigation tools for such graphic visualizations of the resources are known. Examples include tools to zoom in and out, and pan the currently displayed view over the visualization.

¶ 003, lines 3-4. Conventional navigation tools for graphic visualizations of the resources do not exhibit any intelligence in terms of providing a meaningful view or display of the visualization based on the underlying data. ¶ 003, lines 13-14.

Claim 1 is directed to a method of zooming in/out a current display of a visualization of a network. ¶ 0015, lines 3-4. The network comprises a plurality of interconnected nodes. Each network node has zero or more attributes related to an operational characteristic or status of the

network node. ¶ 0015, lines 7-8. The network nodes are represented in the visualization by interconnected icons. Fig. 3, 214, 218, 222, 226, 230; Fig. 4, 226. ¶ 0015, lines 6-7. A network node is considered a “network node of interest” if it has at least one attribute that matches predetermined criteria (such as a STATUS attribute with a CRITICAL or FAILED value, as opposed to a value of NORMAL). ¶ 0018, lines 1-5. Claim 1 recites computing a future display area zoomed in/out from a current display by an initial factor. The future display area is positioned over the visualization so as to include the largest possible number of icons representing network nodes of interest. ¶ 0020, lines 1-3, 10-12; Fig. 3, 240. The current display is then replaced with a view of the future display area. ¶ 0020, lines 13-16; Fig. 4, 224.

Successive zooming using the inventive technique of claim 1 will result in successively detailed views of network nodes, each zoomed-in view including fewer and fewer nodes. Fig. 3, 240, 242, 244. Eventually, only one network node of interest will be within the future display area of a zoom-in operation. Fig. 3, 244, Fig. 4, 224. Claim 14, which is substantially similar to claim 1, recites, when positioning the future display area, if the largest possible number of icons representing network nodes of interest that the future display area can encompass is one, positioning the future display area such that the one icon representing a network node of interest is centered in the future display area. ¶ 0022, lines 5-7; Fig. 4, 224.

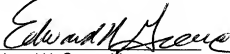
Claim 16 recites a computer system, Fig. 1, 10, having a display device 32, memory 14, and a processor 12 for executing code 16 operative to implement intelligent zooming. ¶ 0011-0015. The code is operative to cause the computer system to display a network comprising a plurality of interconnected nodes. Each network node has zero or more attributes related to an operational characteristic or status of the network node. ¶ 0015, lines 7-8. The software 16 causes the computer system 10 to display the network nodes in the visualization as interconnected icons. Fig. 3, 214, 218, 222, 226, 230; Fig. 4, 226. ¶ 0015, lines 6-7. The software 16 considers a network node to be a “network node of interest” if it has at least one

attribute that matches predetermined criteria (such as a STATUS attribute with a CRITICAL or FAILED value, as opposed to a value of NORMAL). ¶ 0018, lines 1-5. Claim 16 recites the software 16 causing the computer system 10 to compute a future display area zoomed in/out from a current display by an initial factor. The future display area is positioned over the visualization so as to include the largest possible number of icons representing network nodes of interest. ¶ 0020, lines 1-3, 10-12; Fig. 3, 240. The current display is then replaced with a view of the future display area. ¶ 0020, lines 13-16; Fig. 4, 224.

Claim 18 recites a computer-readable medium Fig. 1, 24 storing computer-executable process steps 16 implementing intelligent zooming. ¶ 0015, lines 8-15. Software 16 stored on the computer-readable medium 24 is operative to cause the computer system to display a network comprising a plurality of interconnected nodes. Each network node has zero or more attributes related to an operational characteristic or status of the network node. ¶ 0015, lines 7-8. The software 16 causes the computer system 10 to display the network nodes in the visualization as interconnected icons. Fig. 3, 214, 218, 222, 226, 230; Fig. 4, 226. ¶ 0015, lines 6-7. The software 16 considers a network node to be a "network node of interest" if it has at least one attribute that matches predetermined criteria (such as a STATUS attribute with a CRITICAL or FAILED value, as opposed to a value of NORMAL). ¶ 0018, lines 1-5. Claim 16 recites the software 16 causing the computer system 10 to compute a future display area zoomed in/out from a current display by an initial factor. The future display area is positioned over the visualization so as to include the largest possible number of icons representing network nodes of interest. ¶ 0020, lines 1-3, 10-12; Fig. 3, 240. The current display is then replaced with a view of the future display area. ¶ 0020, lines 13-16; Fig. 4, 224.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Edward H. Green, III", written over a horizontal line.

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